

### REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

1. Amendments and Support for Same

By the Response, claims 1 and 2 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Particularly, claim 1 has been amended to recite a number of distinguishing features of claim 2. No new matter has been added. Accordingly, claims 1-3 are respectfully submitted for consideration. Approval and entry of the amendments are respectfully requested.

2. Rejections under 35 U.S.C. §102(b) and 103(a)

With respect to the rejection of claims 1-3 under 35 U.S.C. §102(b) as being anticipated by Minami (US 6,060,691), and with respect to the rejection of claims 1-3 as being unpatentable over Minami in view of Yamaji (US 2003/0005959), Applicant respectfully traverses the rejections at least for the reason that Minami and Yamaji, combined or separately, fail to describe each and every limitation recited in pending claims.

According to the final Office Action, the Examiner contends that Minami inherently discloses radiant heating, and that the coupling 6 of Minami can be read as part of the piping system. In response, Applicant respectfully submits that it is improper to broadly interpret the coupling 6 of Minami as part of the piping system. Nonetheless, to further clarify the features of the presently claimed invention, Applicant has amended claim 1 to further distinguish the fluid piping system, the valve, a pair of pipes, and a pair of joints and sleeves as distinct and separate limitations, as shown in, e.g., Fig. 4 of the present application.

Specifically, amended claim 1 recites a heater unit to be mounted on a valve having flow path forming sections including a valve body connected to a fluid piping system through joints, and having an actuator connected to the valve body, the valve

being a two-way valve, in which the valve body is placed between a pair of pipes, and connected to the pipes through a pair of joints and sleeves.

To further explain the distinction of the claimed features, Applicant submits herewith Attachment A showing sectional views of a relationship between a connection section (e.g., 48), a sleeve (e.g., 52), and a piping system (e.g., 54). In general, the joint (e.g., 50) connects the connection section and the sleeve. In order to make the connection or coupling, the joint is provided with threads inside thereof to mesh with a matching member. The matching member may be the connecting portion, as shown in the upper figures of Attachment A, or the matching member may be the sleeve, as shown in the lower figures of Attachment A.

Moreover, the term “joint” refers to a hexagonal nut-shaped joint for connecting “connecting section 48” and “sleeve 52”, as described in page 6, lines 2-4, of the specification, which describes “each of the connecting sections 48 is connected to a piping system 54 through a hexagonal nut-shaped joint 50 and a sleeve 52.”

As further clarified in amended claim 1, the heater unit includes a radiant heating section, surrounding the direct heating section, and extending to an area of the flow path forming sections, excluding an area which is brought into direct contact with the direct heating sections, the pair of joints and a part of each of the sleeves, enclosed by the main body, configured to heat the inside of the main body by radiant heat, wherein each of the pipe through-holes has a diameter for receiving each of the sleeves, and the flow path forming sections including the body, the whole of the pair of the joints, and the part of the sleeves are entirely covered by the main body so that only the residual areas of the sleeves and the fluid piping system is exposed from the pipe through-holes, and the area extending from the part of one sleeve to the part of the other sleeve excluding the area which is brought into direct contact with the direct heating sections, enclosed by the main body, are constructed so as to be heated by the radiant heat from the radiant heating section.

Generally, according to amended claim 1, the heater unit covers the area extending from a part of one sleeve to a part of another sleeve, including a flow path forming section and joints. Applicant respectfully asserts that Minami and Yamaji fail to teach, disclose, or suggest at least these features in combination with other claimed features.

In view of the amendment to claim 1, Applicant respectfully asserts that it would be improper to read broadly the couplings 6 of Minami as part of the piping system, and that the amended features further distinguish the presently claimed invention over Minami.

As to the teachings of Yamaji, as previously submitted, while this reference may disclose a fluid control apparatus, in which heat tapes 11 extend to block coupling members 24, the block coupling members 24 are not encapsulated by the heat tapes 11, which would not result in the block coupling members being efficiently heated by the heat tapes 11. Accordingly, it is respectfully submitted that the teachings of Yamaji do nothing to overcome the shortcomings associated with Minami as outlined in detail hereinabove and thus fails to render obvious Applicants claimed invention.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §102(b) and §103(a) rejection of claims 1-3.

3. Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the present application is now in proper condition for allowance. Accordingly, it is requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-3 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's representative, the Examiner is hereby invited to contact the undersigned at the numbers shown.

Further, while no fees are believed to be due, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-4525.

Respectfully submitted,

/Donald R. Studebaker/  
Donald R. Studebaker  
Registration No. 32,815

Studebaker & Brackett PC  
One Fountain Square  
11911 Freedom Drive  
Suite 750  
Reston, Virginia 20190  
(703) 390-9051  
Fax: (703) 390-1277  
don.studebaker@sbpatentlaw.com